

### Explanatory Remarks

Please amend claims as indicated hereinabove, and note that the amendments given here are based upon the previously submitted Supplemental Response A.

By this paper previously pending Claims 1-4, 7, 15, 19, 21-22 and 24 have been canceled. Claims 5-6, 8-14, 16-18, 20, and 23 (a total of 14 claims) remain pending.

#### **Terminal Disclaimer**

1. Applicant acknowledges the Examiner's notation concerning the recordation of the previously submitted terminal disclaimer.

#### **Oath/Declaration**

2. Applicant acknowledges the Examiner's notation concerning the receipt of the corrected Declaration.

#### **Specification**

3. Applicant has hereby requested correction to the cross-noting section of the specification. It is believed that this portion of the specification is now in order, and withdrawal of this objection is now respectfully requested.

#### **Claim Objections**

4. Applicant notes that the multiple dependency problem of Claim 15 has hereby been corrected in that Claim 15 has been canceled and its substance incorporated into Claim 11. Claims 22 and 24 have been canceled, rendering this objection moot.

#### **Claim Rejections – 35 USC 112**

5-6. Applicant notes that a number of changes have been made regarding Claims 1-14, 16-21 and 23 to more definitely and distinctly claim the subject matter which is regarded as the invention. Specifically, Claims 1-4, 7, 19, and 21 have been cancelled. Claim 5 has been restricted via incorporation of the subject matter of Claims 1-4; Claims 8-9 are now dependent on Claim 5; Claim 10-13 are now ultimately dependent on Claim 5; Claims 16-18 and 20 now contain a number of new limitations; and Claim 23 is now dependent on the

more-detailed Claim 18, which further includes a definition for  $xH_2O$ . Correction has now been requested to references to (n+n) to delete that phrase and substitute therefor the typographical correction of "(m+n)". It is believed that, with these changes, the claims now fully meet the requirements of 112 and withdrawal of these rejections is now respectfully requested.

#### **Claim Rejections – 35 USC 102**

**7-8.** The Examiner has rejected Claims 18-19 under 35 USC 102(b) as anticipated by Norman et al., USP 3,948,809 on the basis of the allegation that Norman et al., in certain locations, discloses the calcination of bauxite waste liquors after addition of sodium carbonate or sodium hydroxide at temperatures of 400°C to 900°C.

Applicant notes herein that Claim 19 has now been canceled, thus rendering this rejection moot. As to Claim 18, Applicant respectfully but strongly continues to traverse this rejection on the ground that the Norman et al. reference clearly cannot be deemed to anticipate the composition of Applicant's claim for two reasons: (1) Claim 18 is not drawn to a bauxite waste stream, but rather to a calcined hydrotalcite or hydrotalcite-like material; and (2) Simple calcination of a bauxite waste stream at the temperatures indicated, even after addition of sodium carbonate or sodium hydroxide, would not be expected to yield Applicant's material because normally magnesium would not be present. Accordingly, Applicant believes that Norman et al. lacks the one-to-one correspondence of elements that are necessary to establish anticipation, and respectfully requests withdrawal of this rejection.

#### **Claim Rejections – 35 USC 103**

**9-10.** Claims 1-4, 7, 10, 14, 18-21 and 23 stand rejected under 35 USC 103(a) as being unpatentable over Burba, III et al., US 5,232,627 ("Burba III et al."), taken with Martin et al., US 5,728,363 ("Martin et al.").

Applicant notes respectfully that, by this paper, Claims 1-4, 7, 18-19, and 21 have been canceled. Thus, only Claims 10, 14, 20 and 23 remain of consideration. Of these, Claims 10 and 14 have been amended to include all of the limitations of Claim 5, and Claims 20 and 23 have been amended to include

all of the limitations of Claim 18. It is believed that, as combined by the Examiner, Burba III et al. and Martin et al. neither disclose nor reasonably suggest the particular molecular constituency as defined by Applicant in the independent claims upon which the rejected claims depend, and that therefore inclusion in the compositions of the particular smectitic clays of Claim 10; the ratios of Claim 14; the clay, aluminum oxide, nitrogen-containing compound, or combination thereof of Claim 20; or the proportionality that yields an elastic solid (which represents an optimized state of the composition, but not necessarily the only state that will be efficacious) of Claim 23; represent some preferred embodiments, heretofore unknown in the art and never employed in the applicable industry, enjoy the benefit of what might be termed imputed novelty.

Indeed, a secondary indicium of nonobviousness has been found by the Applicant in the substantial commercial success of his invention. The dry modification agent, which Applicant manufactures, is now being purchased by certain oilfield service companies for use to form the rheology modified compositions at drillsites all over the world and is, to the best of Applicant's knowledge and good faith belief, not being produced by any other manufacturer. Such secondary indicia are important factors to be considered in deciding whether a combination of the cited two pieces of art adequately supports the rejection as stated by the Examiner. It is Applicant's respectful assertion that, in this case, they clearly do not. This is in part because, as the Examiner himself admits, Burba et al. use a material defined by a different formula, one that is incapable of producing the rheological modification effect of Applicant's agent. See Applicant's Example 14 and Comparative Example A, wherein the comparative material, when combined with clay and water, is essentially the same as the Burba et al. material used in an aqueous clay composition as in Martin et al.. Thus, Applicant's specification already takes into account the combination of art being herein constructed by the Examiner, and dramatically refutes the efficacy of such combination as defined.

In view of the above comments and the referenced amendments to the claims, Applicant believes that this rejection has now been overcome, and its withdrawal is respectfully requested.

**11-12.** Claims 11-13 stand rejected under 35 USC 103(a) as being unpatentable over Burba et al, taken with Martin et al., and further in view of Keilhofer et al., US 6,025,303 (hereinafter "Keilhofer et al.") and/or either Watkins et al., US 4,580,633 (hereinafter "Watkins et al.") or Wyganowski, US 5,036,915 (hereinafter "Wyganowski").

The referenced claims have, by this paper, all been amended to include all of the limitations of present Claim 5, which therefore include all of the limitations of previous Claims 1-4, now canceled. Thus, they represent preferred embodiments of the now-narrower Claim 5 wherein the aluminum oxide, nitrogen-containing compound, or both are added to a material, as defined, that has been prepared via the defined calcination process. Since the Examiner has already established the allowability, and therefore novelty, of Claim 5 (see reference paragraph 12. hereinbelow), adding these materials to the composition of Claim 5 can be read as enjoying at the very least the benefits of novelty derived from Claim 5. In addition, particular enhancement of useful temperature range is found when the materials noted in Claims 11-13 are employed with the Claim 5 compositions, as described at page 15 of Applicant's specification. Such temperature enhancement is not mentioned in any of the cited references, and because the composition of Claim 5 is patentably distinguishable from the compositions described in the cited references, it cannot fairly be assumed that use of such additional materials in the references imparts comparable, or indeed, any enhancement of useful temperature range. Assumptions and guesses cannot be employed when the law explicitly requires that a reference or combination of references fairly be said to teach the invention, thereby making its contribution to technology truly understandable and therefore accessible to the public to promote further technological advances. In view of these facts, it is believed that this rejection has now been overcome and its withdrawal is now respectfully requested.

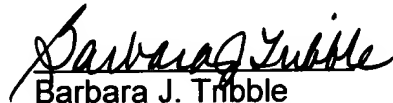
### **Allowable Subject Matter**

12. The Examiner has noted that Claims 5-6, 8-9 and 16-17 would be allowable if rewritten to overcome the rejections under 35 USC 112, second paragraph, as set forth in the office action and also to include all of the limitations of the base claim and any intervening claims.

Applicant has attempted herein to amend the claims to comply with the Examiner's notation. Accordingly, Applicant believes that these claims are now fully allowable, and their allowance is hereby respectfully and specifically requested.

Applicant further believes that all fourteen (14) currently pending claims as constructed hereinabove are now fully in condition for allowance. Such allowance of all claims is now most respectfully requested.

Respectfully submitted,



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